



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

ES Windows, LLC
3550 NW 49th Street
MIAMI, FL 33142

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "ES-8000T" Thermally Broken Aluminum Window Wall System – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W14-38**, series titled "ES-8000T Alum. Window Wall System (L.M.I.)", sheets 1 through 9 of 9, dated 10/01/14, with revision "B" dated 06/27/16, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and Approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Colombia, America Latina**, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jorge M. Plasencia, P.E.**



Jorge M. Plasencia
8/17/2016

NOA No. 15-0826.26
Expiration Date: August 25, 2021
Approval Date: August 25, 2016
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W14-38**, series titled "ES-8000T Alum. Window Wall System (L.M.I.)", sheets 1 through 9 of 9, dated 10/01/14, with revision "B" dated 06/27/16, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. TESTS

1. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Level Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Drop Load Test, per CPCS 16 CFR 1201 (Cat 11)
 - 7) Safety Performance Test, (class A) per ANSI Z97.1

along with marked-up drawings and installation diagram of a window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7546**, dated 04/14/15, signed and sealed by Idalmis Ortega, P.E.

C. CALCULATIONS:

1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, prepared by Al-Farooq Corporation, dated 07/13/15 revised on 06/30/16, signed and sealed by Javad Ahmad, P.E.
2. **Glazing complies with ASTM E1300-09**


D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **14-0916.10** issued to **Kuraray America, Inc.** for their "**Kuraray Butacite® PVB Glass Interlayer**" dated 04/25/15, expiring on 12/11/16.
2. Notice of Acceptance No. **14-0916.11** issued to **Kuraray America, Inc.** for their "**SentryGlas® (Clear and White) Glass Interlayers**" dated 06/25/15, expiring on 07/04/18.
3. Bayer MaterialScience, LLC Part No. **Baydur TB 100-30 Thermal Break System** complying with ASTM D638 Tensile Strength of 5,700 psi, ASTM D 790 Flexural Modulus of 225 ksi, ASTM D 256 Notched Izod of 1.9 ft.-lb./in., ASTM D 648 Heat Distortion of 178°F @ 66 psi, ASTM D 2240 Hardness Shore D @ 5 sec. of ±78 Durometer, ASTM D 1622 Density of 72 pcf and 1/4-inch thickness.

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Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 15-0826.26
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E. MATERIAL CERTIFICATIONS (CONTINUED)

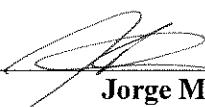
4. 0.375–inch (Length) by 0.26–inch (Height) by 0.0059–inch (Thickness) (9.5x6.6x0.15mm) Aluminum Low Profile Insulated–Glass spacer **Helima AH 956 N** (P/N.: USA K 001 000 000 R7) with Aluminum Alloy **AW–3000** ($F_{t_u}=17$ ksi and $F_{t_y}=12$ ksi) by **Helmut Lingemann GmbH & Co., KG**.

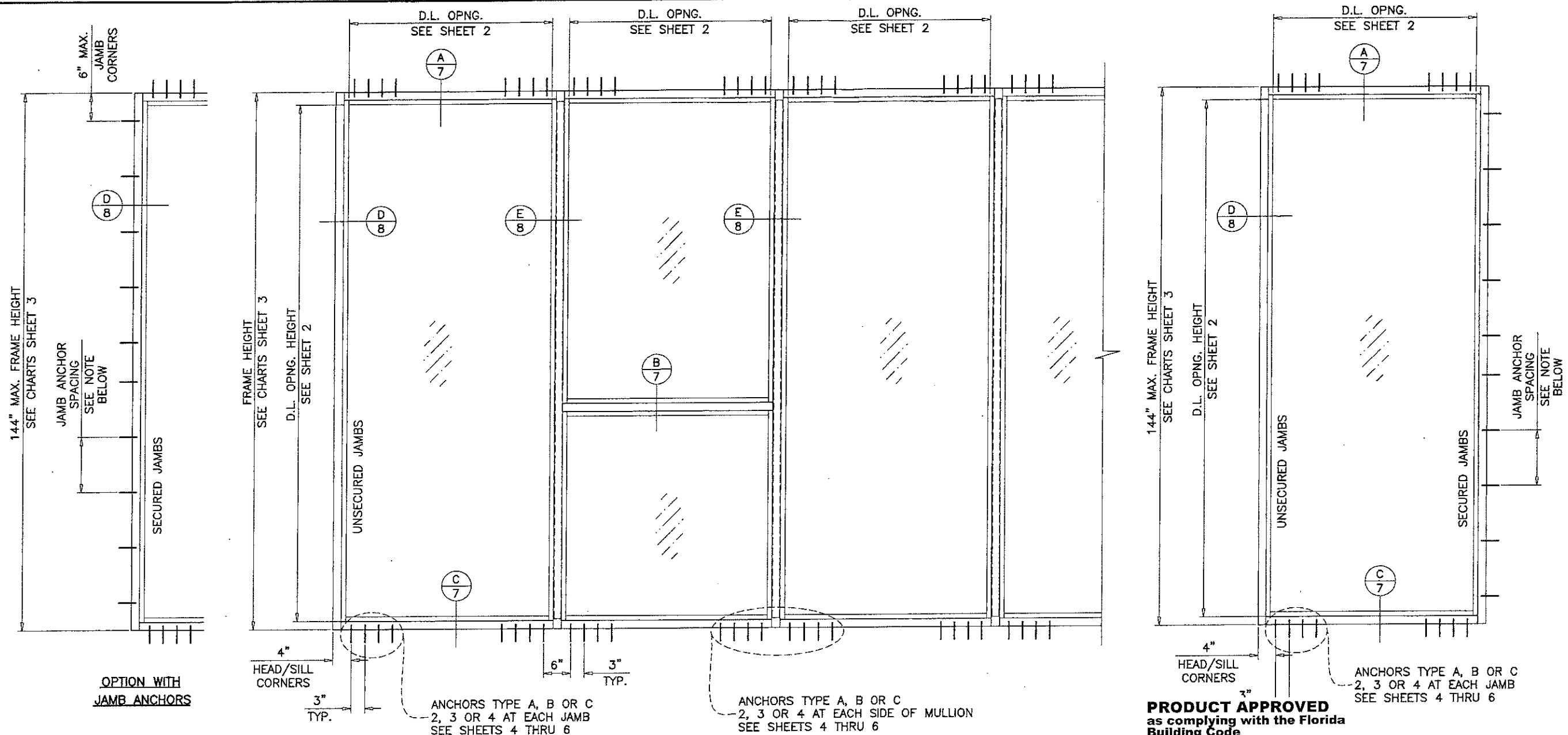
F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 5th Edition (2014)**, and of no financial interest, dated 07/13/15, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Distributor Agreement between ES Windows–Energia Solar, S.A., Barranquilla, Columbia, S.A. and ES Windows, LLC, Miami, Florida, dated 09/12/13, signed by Ms. Adriana Montoya, Manager and Andres Chamorro, General Manager respectively on behalf of the companies.
3. Laboratory compliance letters for Test Report No. **FTL-7546**, dated 04/14/15, issued by Fenestration Testing Laboratory, Inc., signed and sealed by Idalmis Ortega, P.E.
4. Proposal issued by Product Control, dated 11/08/13, signed by Jaime D. Gascon, P. E.

G. OTHERS

1. None.


Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 15–0826.26
Expiration Date: August 25, 2021
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SERIES ES-8000T ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT SHUTTERS ARE NOT REQUIRED.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2014 (5TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2014 FLORIDA BUILDING CODE & ADOPTED STANDARDS.

TYPICAL ELEVATIONS

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHART ON SHEETS 4 THRU 6 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3, AND 4 SHALL APPLY TO ENTIRE SYSTEM.

JAMB ANCHORS:

FOR 12" MAX. SPACING LIMIT MAX. LBY
TO 80.0 PSF FOR ANCHOR TYPES 'A' 'Miami-Dade Product Control'
TO 74.0 PSF FOR ANCHOR TYPE 'C'
FOR LOADS HIGHER THAN SHOWN ABOVE
LIMIT ANCHOR SPACING TO 6" MAX.

PRODUCT APPROVED
as complying with the Florida
Building Code

NOA-No. **15-0826.26** VEL:

Approval Date **08/25/2021** = D.L.O. WIDTH + 5.50"
= D.L.O. HEIGHT + 5.50"

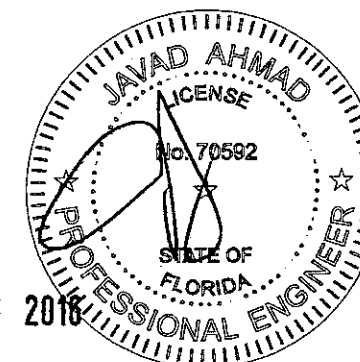
PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

PRODUCT APPROVED
as complying with the Florida
Building Code

NOA-No. **15-0826.26**

Approval Date **08/25/2021**

By *[Signature]*
Miami-Dade Product Control



AUG 11 2018

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W14-38ES

ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	A	02.24.16		REV. PER RER COMMENTS
	B	06.27.16		NO CHANGE THIS SHEET

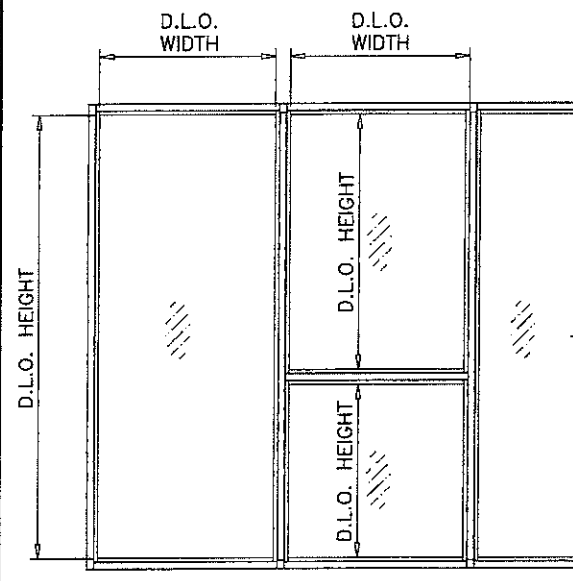
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dr. by:	HAMID
chk. by:	

drawing no.

W14-38

sheet 1 of 9

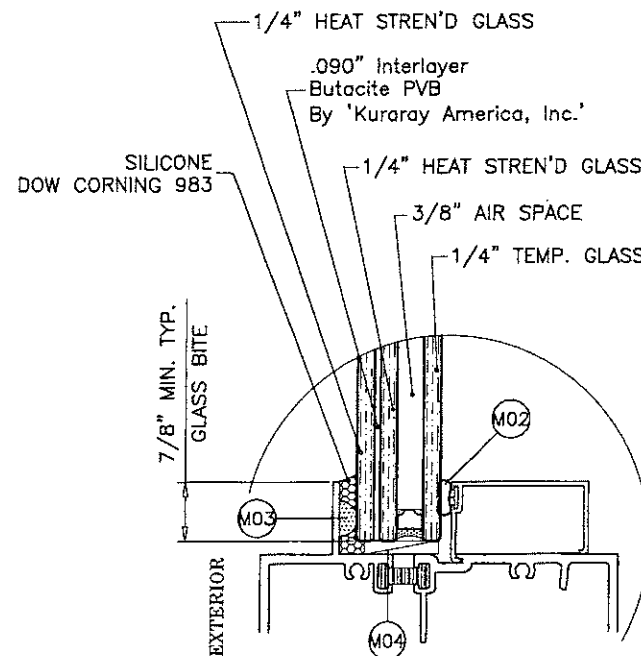
GLASS LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPES	
		'GL1'/'GL1R'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/4"	105-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	108-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	114-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	120-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	126-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	132-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	138-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0



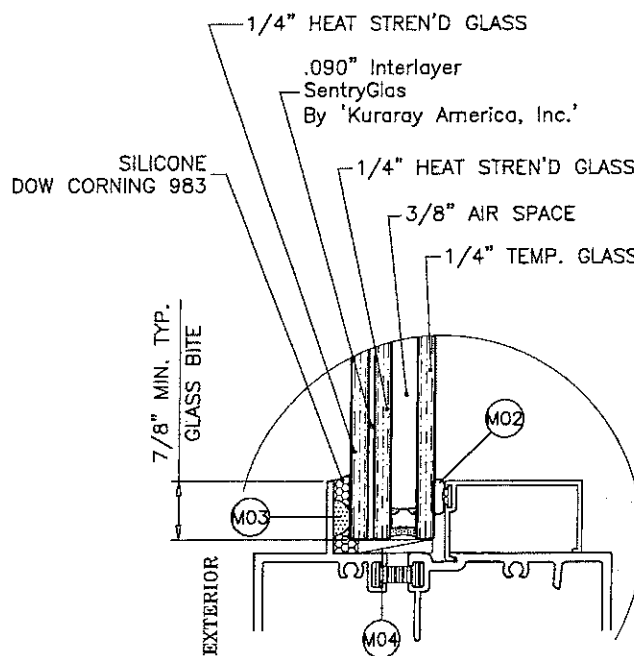
GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES			
		'GL2'	'GL2R'		
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/4"	84-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	90-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	93-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	96-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	102-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	105-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	108-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	114-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

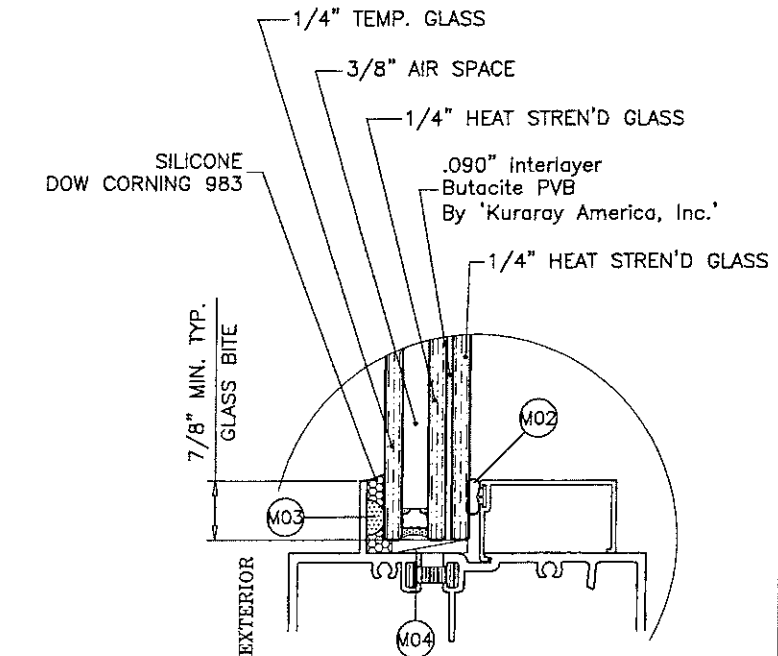
GLASS



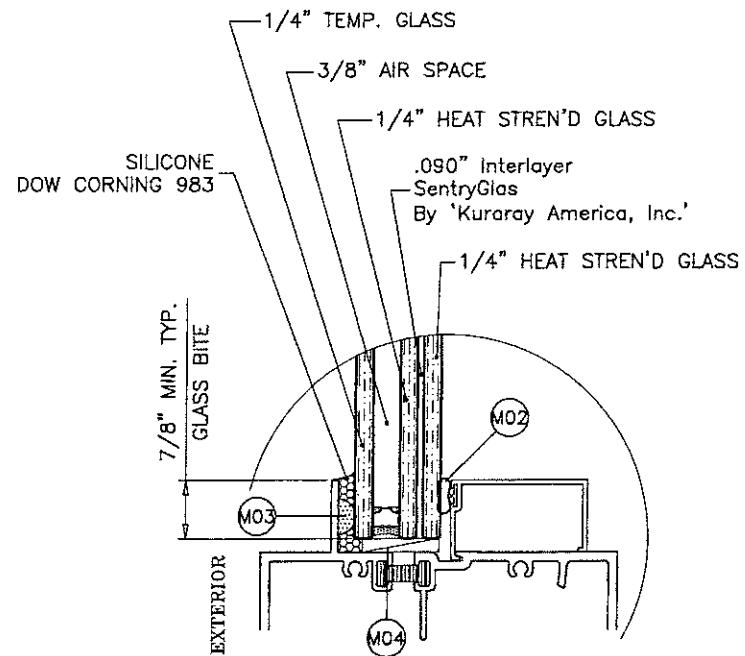
GLASS TYPE 'GL1'
1-3/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'GL2'
1-3/16" OVERALL INSUL. LAM. GLASS



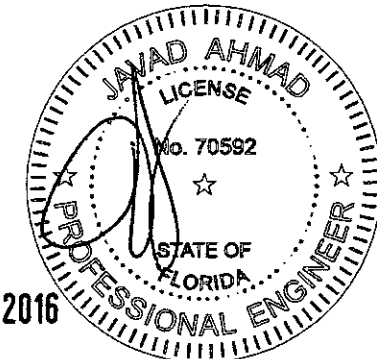
GLASS TYPE 'GL1R'
1-3/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'GL2R'
1-3/16" OVERALL INSUL. LAM. GLASS

3/8" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOW CORNING 791
GE 2000

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. **15-0826.26**
Approval Date **08/25/2021**
By *[Signature]*
Miami-Dade Product Control



NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS).

AUG 11 2016

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
(C.A.N. 3538)

ES-800T ALUM WINDOW WALL SYSTEM (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

Revisions:

No	date	by	description
A	02.24.16	REV. PER	COMMENTS
B	06.27.16	REV. PER	COMMENTS

date: 10-01-14

scale: -

dr. by: HAMID

chk. by:

drawing no.

W14-38

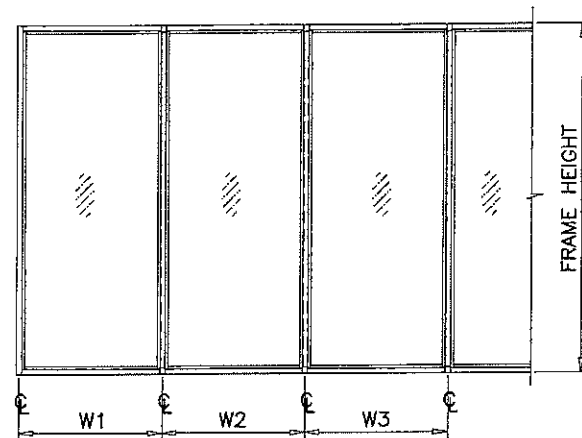
sheet 2 of 9

COMP-ANL W14-38ES

DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		JAMB MULLION	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
30"	96"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
54"		90.0	120.0
60"		90.0	120.0
30"	98-1/2"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
54"		90.0	120.0
60"		60.0	70.0
30"	102"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
54"		90.0	120.0
60"		60.0	70.0
30"	108"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
54"		60.0	70.0
60"		60.0	70.0
30"	110-1/2"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	116.0
54"		60.0	70.0
60"		60.0	70.0
30"	114"	90.0	120.0
36"		90.0	120.0
42"		90.0	118.1
48"		90.0	105.1
54"		60.0	70.0
60"		60.0	70.0
30"	120"	90.0	120.0
36"		90.0	115.9
42"		90.0	100.7
48"		84.9	84.9
54"		60.0	70.0
57"		60.0	70.0
30"	126"	60.0	70.0
36"		60.0	70.0
42"		60.0	70.0
48"		60.0	69.4
30"	132"	60.0	70.0
36"		60.0	70.0
42"		60.0	70.0
48"		60.0	66.4
52"		60.0	61.9

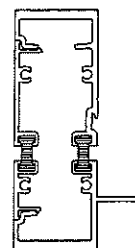
DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		JAMB MULLION	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
30"	138"	60.0	70.0
36"		60.0	70.0
42"		60.0	65.4
48"		57.9	57.9
50"		55.8	55.8
30"	144"	60.0	70.0
36"		60.0	66.3
42"		57.4	57.4
48"		50.7	50.7

INTERPOLATION BETWEEN WIDTHS OR
HEIGHTS ALLOWED.



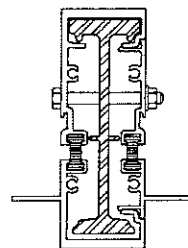
WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



JAMB

Ix IN ⁴	Sx IN ³
16.8850	2.6400

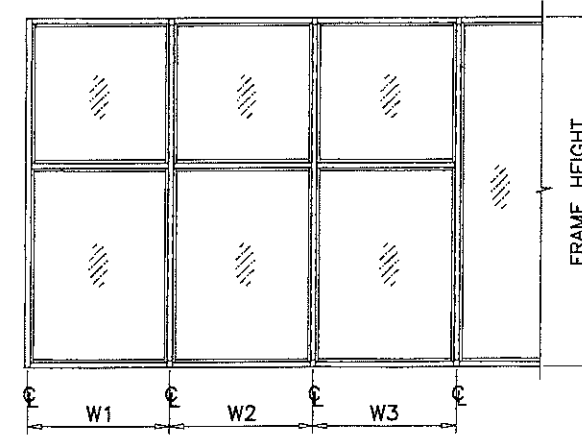


MULLION

Ix IN ⁴	Sx IN ³
11.3441	4.3497

DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITH INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		JAMB MULLION	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
30"	96"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
30"	98-1/2"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
30"	102"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	120.0
30"	108"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	115.3
30"	110-1/2"	90.0	120.0
36"		90.0	120.0
42"		90.0	120.0
48"		90.0	107.6
30"	114"	90.0	120.0
36"		90.0	120.0
42"		90.0	112.0
48"		90.0	98.0
30"	120"	90.0	120.0
36"		90.0	112.0
42"		90.0	96.0
48"		84.0	84.0
30"	126"	60.0	70.0
36"		60.0	70.0
42"		60.0	70.0
48"		60.0	70.0
30"	132"	60.0	70.0
36"		60.0	70.0
42"		60.0	70.0
48"		60.0	63.1
30"	138"	60.0	70.0
36"		60.0	70.0
42"		60.0	63.1
48"		55.3	55.3
30"	144"	60.0	70.0
36"		60.0	64.8
42"		55.6	55.6
48"		48.6	48.6

INTERPOLATION BETWEEN WIDTHS OR
HEIGHTS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION

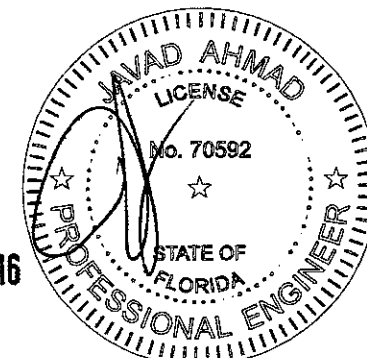
MULLIONS

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 15-0826.26

Approval Date 08/25/2021

By
Miami-Date Product Control

AUG 11 2016



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W14-38ES

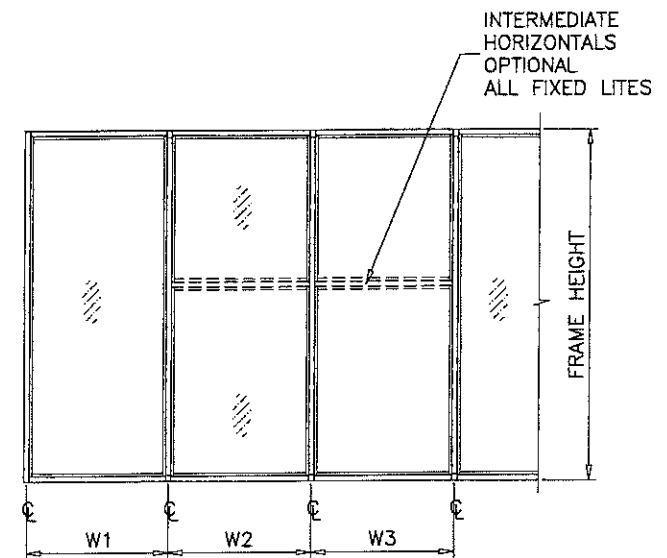
ES-800T ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
A	02.24.16	REV. PER	REV. COMMENTS
B	06.27.16	REV. PER	REV. COMMENTS
revisions:			
date:	10-01-14	scale:	-
dr. by:	HAMID	chk. by:	
drawing no.			
W14-38			
sheet 3 of 9			

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS.		ANCHORS TYPE 'A'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	A2	A3	A4	A3	A4
30"	78"	120.0	120.0	120.0	99.0	120.0	120.0	115.2	120.0
36"		107.1	120.0	120.0	82.5	120.0	120.0	96.0	120.0
42"		91.8	120.0	120.0	70.7	106.0	120.0	82.3	109.7
48"		80.3	120.0	120.0	61.8	92.8	120.0	72.0	96.0
54"		71.4	107.1	120.0	55.0	82.5	109.9	64.0	85.3
60"		64.2	96.4	120.0	49.5	74.2	99.0	57.6	76.8
30"	84"	119.3	120.0	120.0	91.9	120.0	120.0	107.0	120.0
36"		99.4	120.0	120.0	76.6	114.9	120.0	89.1	118.9
42"		85.2	120.0	120.0	65.6	98.4	120.0	76.4	101.9
48"		74.6	111.9	120.0	57.4	86.1	114.9	66.9	89.1
54"		66.3	99.4	120.0	51.0	76.6	102.1	59.4	79.2
60"		59.7	89.5	119.3	45.9	68.9	91.9	53.5	71.3
30"	90"	111.4	120.0	120.0	85.8	120.0	120.0	99.8	120.0
36"		92.8	120.0	120.0	71.5	107.2	120.0	83.2	110.9
42"		79.5	119.3	120.0	61.3	91.9	120.0	71.3	95.1
48"		69.6	104.4	120.0	53.6	80.4	107.2	62.4	83.2
54"		61.9	92.8	120.0	47.6	71.5	95.3	55.5	74.0
60"		55.7	83.5	111.4	42.9	64.3	85.8	49.9	66.6
30"	96"	104.4	120.0	120.0	80.4	120.0	120.0	93.6	120.0
36"		87.0	120.0	120.0	67.0	100.5	120.0	78.0	104.0
42"		74.6	111.9	120.0	57.4	86.1	114.9	66.9	89.1
48"		65.3	97.9	120.0	50.3	75.4	100.5	58.5	78.0
54"		58.0	87.0	116.0	44.7	67.0	89.3	52.0	69.3
60"		52.2	78.3	104.4	40.2	60.3	80.4	46.8	62.4
30"	102"	98.3	120.0	120.0	75.7	113.5	120.0	88.1	117.5
36"		81.9	120.0	120.0	63.1	94.6	120.0	73.4	97.9
42"		70.2	105.3	120.0	54.1	81.1	108.1	62.9	83.9
48"		61.4	92.1	120.0	47.3	70.9	94.6	55.1	73.4
54"		54.6	81.9	109.2	42.0	63.1	84.1	48.9	65.3
60"		49.1	70.0	70.0	37.8	56.8	70.0	44.0	58.7
30"	108"	92.8	120.0	120.0	71.5	107.2	120.0	83.2	110.9
36"		77.3	116.0	120.0	59.6	89.3	119.1	69.3	92.4
42"		66.3	99.4	120.0	51.0	76.6	102.1	59.4	79.2
48"		58.0	87.0	116.0	44.7	67.0	89.3	52.0	69.3
54"		51.6	77.3	103.1	39.7	59.6	79.4	46.2	61.6
60"		46.4	69.6	70.0	35.7	53.6	70.0	41.6	55.5
30"	114"	87.9	120.0	120.0	67.7	101.6	120.0	78.8	105.1
36"		73.3	109.9	120.0	56.4	84.6	112.8	65.7	87.6
42"		62.8	94.2	120.0	48.4	72.5	96.7	56.3	75.1
48"		54.9	82.4	109.9	42.3	63.5	84.6	49.3	65.7
54"		48.8	70.0	70.0	37.6	56.4	70.0	43.8	58.4
60"		44.0	65.9	70.0	33.9	50.8	67.7	39.4	52.5
30"	120"	83.5	120.0	120.0	64.3	96.5	120.0	74.9	99.8
36"		69.6	104.4	120.0	53.6	80.4	107.2	62.4	83.2
42"		59.7	89.5	119.3	45.9	68.9	91.9	53.5	71.3
48"		52.2	78.3	104.4	40.2	60.3	80.4	46.8	62.4
54"		46.4	69.6	70.0	35.7	53.6	70.0	41.6	55.5
60"		41.6	64.3	70.0	31.0	48.9	67.7	36.7	50.8
30"	126"	70.0	70.0	70.0	61.3	70.0	70.0	70.0	70.0
36"		66.3	70.0	70.0	51.0	70.0	70.0	59.4	70.0
42"		56.8	70.0	70.0	43.8	65.6	70.0	50.9	67.9
48"		49.7	70.0	70.0	38.3	57.4	70.0	44.6	59.4
54"		44.2	66.3	70.0	34.0	51.0	68.1	39.6	52.8
60"		39.6	61.3	70.0	29.5	46.5	63.6	35.1	48.3

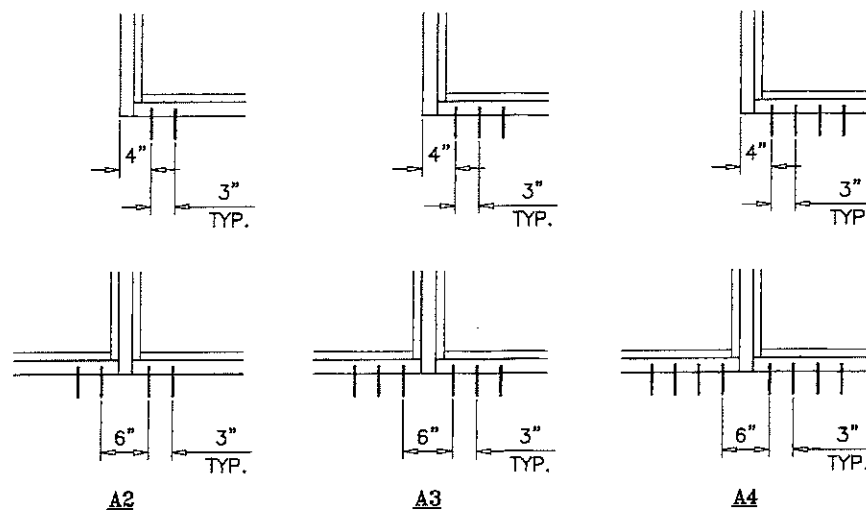
ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS.		ANCHORS TYPE 'A'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	A2	A3	A4	A3	A4
30"	132"	70.0	70.0	70.0	58.5	70.0	70.0	68.1	70.0
36"		63.3	70.0	70.0	48.7	70.0	70.0	56.7	70.0
42"		54.2	70.0	70.0	41.8	62.6	70.0	48.6	64.8
48"		47.5	70.0	70.0	36.5	54.8	70.0	42.5	56.7
30"	138"	70.0	70.0	70.0	55.9	70.0	70.0	65.1	70.0
36"		60.5	70.0	70.0	46.6	69.9	70.0	54.3	70.0
42"		51.9	70.0	70.0	40.0	59.9	70.0	46.5	62.0
48"		45.4	68.1	70.0	35.0	52.4	69.9	40.7	54.3
30"	144"	69.6	70.0	70.0	53.6	70.0	70.0	62.4	70.0
36"		58.0	70.0	70.0	44.7	67.0	70.0	52.0	69.3
42"		49.7	70.0	70.0	38.3	57.4	70.0	44.6	59.4
48"		43.5	65.3	70.0	33.5	50.3	67.0	39.0	52.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



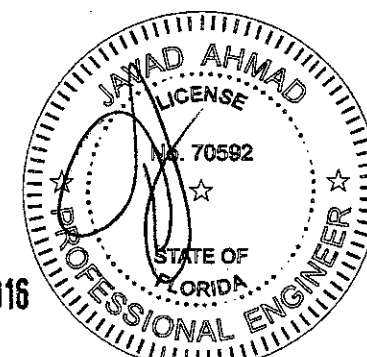
ANCHORS TYPES: SEE SHEET 7 FOR DESCRIPTION

A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 15-0826.26

Approval Date 08/25/2021

By 
Miami-Dade Product Control



ANCHORS

AUG 11 2016

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 262-8100 FAX. (305) 262-6978
COMP-ANL W14-38ES

ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no.	date	by	description
	A	02.24.16	REV.	PER COMMENTS
	B	06.27.16	REV.	PER COMMENTS

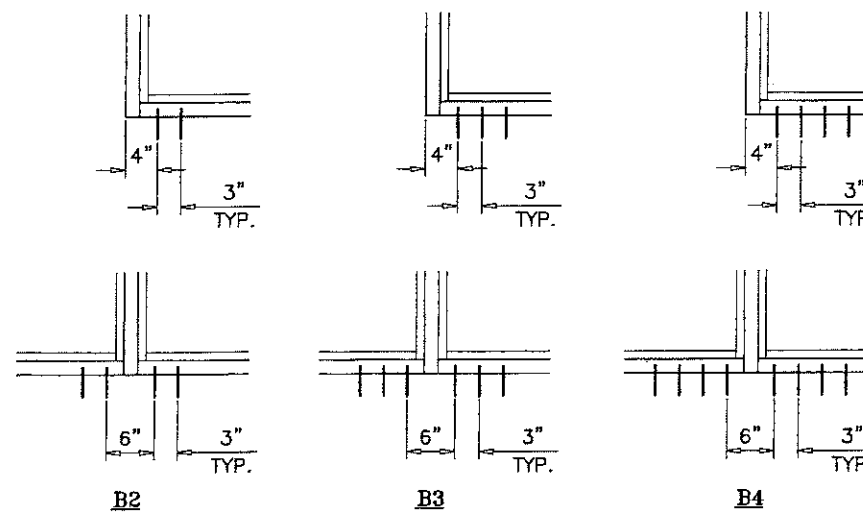
date: 10-01-14
scale: -
dr. by: HAMID
chk. by:

drawing no.
W14-38
sheet 4 of 9

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHORS TYPE 'B'								
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM		
WIDTH (W)	FRAME HEIGHT	B2	B3	B4	B2	B3	B4	B2	B3	B4
30"	78"	120.0	120.0	120.0	120.0	120.0	120.0	101.4	120.0	120.0
36"		120.0	120.0	120.0	107.1	120.0	120.0	84.5	120.0	120.0
42"		119.9	120.0	120.0	91.8	120.0	120.0	72.4	108.7	120.0
48"		104.9	120.0	120.0	80.3	120.0	120.0	63.4	95.1	120.0
54"		93.3	120.0	120.0	71.4	107.1	120.0	56.3	84.5	112.7
60"		83.9	120.0	120.0	64.2	96.4	120.0	50.7	76.1	101.4
30"	84"	120.0	120.0	120.0	119.3	120.0	120.0	94.2	120.0	120.0
36"		120.0	120.0	120.0	99.4	120.0	120.0	78.5	117.7	120.0
42"		111.3	120.0	120.0	85.2	120.0	120.0	67.3	100.9	120.0
48"		97.4	120.0	120.0	74.6	111.9	120.0	58.9	88.3	117.7
54"		86.6	120.0	120.0	66.3	99.4	120.0	52.3	78.5	104.6
60"		77.9	116.9	120.0	59.7	89.5	119.3	47.1	70.6	94.2
30"	90"	120.0	120.0	120.0	111.4	120.0	120.0	87.9	120.0	120.0
36"		120.0	120.0	120.0	92.8	120.0	120.0	73.2	109.9	120.0
42"		103.9	120.0	120.0	79.5	119.3	120.0	62.8	94.2	120.0
48"		90.9	120.0	120.0	69.6	104.4	120.0	54.9	82.4	109.9
54"		80.8	120.0	120.0	61.9	92.8	120.0	48.8	73.2	97.7
60"		72.7	109.1	120.0	55.7	83.5	111.4	43.9	65.9	87.9
30"	96"	120.0	120.0	120.0	104.4	120.0	120.0	82.4	120.0	120.0
36"		113.7	120.0	120.0	87.0	120.0	120.0	68.7	103.0	120.0
42"		97.4	120.0	120.0	74.6	111.9	120.0	58.9	88.3	117.7
48"		85.3	120.0	120.0	65.3	97.9	120.0	51.5	77.3	103.0
54"		75.8	113.7	120.0	58.0	87.0	116.0	45.8	68.7	91.6
60"		68.2	102.3	120.0	52.2	78.3	104.4	41.2	61.8	82.4
30"	102"	120.0	120.0	120.0	98.3	120.0	120.0	77.6	116.3	120.0
36"		107.0	120.0	120.0	81.9	120.0	120.0	64.6	96.9	120.0
42"		91.7	120.0	120.0	70.2	105.3	120.0	55.4	83.1	110.8
48"		80.2	120.0	120.0	61.4	92.1	120.0	48.5	72.7	96.9
54"		71.3	107.0	120.0	54.6	81.9	109.2	43.1	64.6	86.2
60"		64.2	70.0	70.0	49.1	70.0	70.0	38.8	58.2	70.0
30"	108"	120.0	120.0	120.0	92.8	120.0	120.0	73.2	109.9	120.0
36"		101.0	120.0	120.0	77.3	116.0	120.0	61.0	91.6	120.0
42"		86.6	120.0	120.0	66.3	99.4	120.0	52.3	78.5	104.6
48"		75.8	113.7	120.0	58.0	87.0	116.0	45.8	68.7	91.6
54"		67.4	101.0	120.0	51.6	77.3	103.1	40.7	61.0	81.4
60"		60.6	70.0	70.0	46.4	69.6	70.0	36.6	54.9	70.0
30"	114"	114.9	120.0	120.0	87.9	120.0	120.0	69.4	104.1	120.0
36"		95.7	120.0	120.0	73.3	109.9	120.0	57.8	86.7	115.6
42"		82.0	120.0	120.0	62.8	94.2	120.0	49.6	74.3	99.1
48"		71.8	107.7	120.0	54.9	82.4	109.9	43.4	65.1	86.7
54"		63.8	70.0	70.0	48.8	70.0	70.0	38.5	57.8	70.0
60"		57.4	70.0	70.0	44.0	65.9	70.0	34.7	52.0	69.4
30"	120"	109.1	120.0	120.0	83.5	120.0	120.0	65.9	98.9	120.0
36"		90.9	120.0	120.0	69.6	104.4	120.0	54.9	82.4	109.9
42"		77.9	116.9	120.0	59.7	89.5	119.3	47.1	70.6	94.2
48"		68.2	102.3	120.0	52.2	78.3	104.4	41.2	61.8	82.4
54"		60.6	70.0	70.0	46.4	69.6	70.0	36.6	54.9	70.0
30"	126"	70.0	70.0	70.0	70.0	70.0	70.0	62.8	70.0	70.0
36"		70.0	70.0	70.0	66.3	70.0	70.0	52.3	70.0	70.0
42"		70.0	70.0	70.0	56.8	70.0	70.0	44.8	67.3	70.0
48"		65.0	70.0	70.0	49.7	70.0	70.0	39.2	58.9	70.0
54"		57.7	70.0	70.0	44.2	66.3	70.0	34.9	52.3	69.8

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHORS TYPE 'B'								
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM		
WIDTH (W)	FRAME HEIGHT	B2	B3	B4	B2	B3	B4	B2	B3	B4
30"	132"	70.0	70.0	70.0	70.0	70.0	70.0	59.9	70.0	70.0
36"		70.0	70.0	70.0	63.3	70.0	70.0	49.9	70.0	70.0
42"		70.0	70.0	70.0	54.2	70.0	70.0	42.8	64.2	70.0
48"	138"	62.0	70.0	70.0	47.5	70.0	70.0	37.5	56.2	70.0
30"		70.0	70.0	70.0	70.0	70.0	70.0	57.3	70.0	70.0
36"		70.0	70.0	70.0	60.5	70.0	70.0	47.8	70.0	70.0
42"	144"	67.8	70.0	70.0	51.9	70.0	70.0	40.9	61.4	70.0
48"		59.3	70.0	70.0	45.4	68.1	70.0	35.8	53.7	70.0
30"		70.0	70.0	70.0	69.6	70.0	70.0	54.9	70.0	70.0
36"		70.0	70.0	70.0	58.0	70.0	70.0	45.8	68.7	70.0
42"		65.0	70.0	70.0	49.7	70.0	70.0	39.2	58.9	70.0
48"		56.8	70.0	70.0	43.5	65.3	70.0	34.3	51.5	68.7

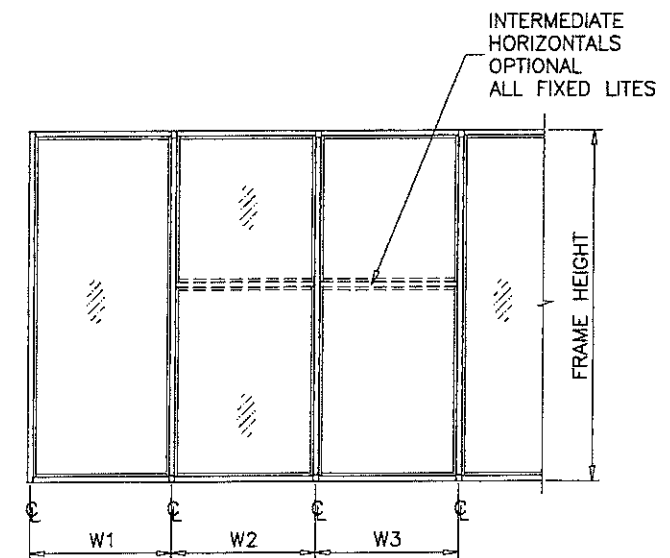
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS TYPES: SEE SHEET 7 FOR DESCRIPTION

B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION

ANCHORS



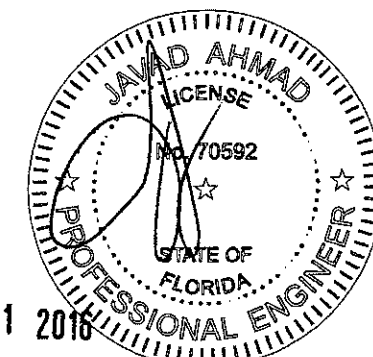
WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 15-0826.26

Approval Date 08/25/2021

By Miami-Dade Product Control



AUG 11 2016

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL (305) 264-8100 FAX (305) 262-6978
COMP-ANL\W14-38ES

ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL (305) 638-5151 FAX (305) 638-5158

no	date	by	description
A	02.24.16		REV. PER COMMENTS
B	06.27.16		REV. PER COMMENTS

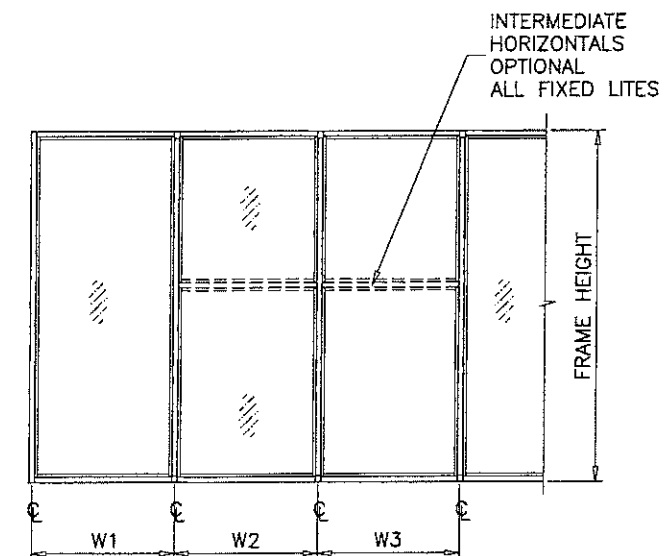
date: 10-01-14
scale: 1
dr. by: HAMID
chk. by:

drawing no.
W14-38
sheet 5 of 9

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS.		ANCHORS TYPE 'C'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	C2	C3	C4	C2	C3	C4	C3	C4
30"	78"	120.0	120.0	120.0	91.6	120.0	120.0	108.6	120.0
36"		120.0	120.0	120.0	76.3	114.5	120.0	90.5	120.0
42"		120.0	120.0	120.0	65.4	98.1	120.0	77.5	103.4
48"		120.0	120.0	120.0	57.2	85.8	114.5	67.8	90.5
54"		106.9	120.0	120.0	50.9	76.3	101.7	60.3	80.4
60"		96.2	120.0	120.0	45.8	68.7	91.6	54.3	72.4
30"	84"	120.0	120.0	120.0	85.0	120.0	120.0	100.8	120.0
36"		120.0	120.0	120.0	70.9	106.3	120.0	84.0	112.0
42"		120.0	120.0	120.0	60.7	91.1	120.0	72.0	96.0
48"		111.7	120.0	120.0	53.1	79.7	106.3	63.0	84.0
54"		99.3	120.0	120.0	47.2	70.9	94.5	56.0	74.7
60"		89.4	120.0	120.0	42.5	63.8	85.0	50.4	67.2
30"	90"	120.0	120.0	120.0	79.4	119.0	120.0	94.1	120.0
36"		120.0	120.0	120.0	66.1	99.2	120.0	78.4	104.5
42"		119.2	120.0	120.0	56.7	85.0	113.4	67.2	89.6
48"		104.3	120.0	120.0	49.6	74.4	99.2	58.8	78.4
54"		92.7	120.0	120.0	44.1	66.1	88.2	52.3	69.7
60"		83.4	120.0	120.0	39.7	59.5	79.4	47.0	62.7
30"	96"	120.0	120.0	120.0	74.4	111.6	120.0	88.2	117.6
36"		120.0	120.0	120.0	62.0	93.0	120.0	73.5	98.0
42"		111.7	120.0	120.0	53.1	79.7	106.3	63.0	84.0
48"		97.8	120.0	120.0	46.5	69.8	93.0	55.1	73.5
54"		86.9	120.0	120.0	41.3	62.0	82.7	49.0	65.3
60"		78.2	117.3	120.0	37.2	55.8	74.4	44.1	58.8
30"	102"	120.0	120.0	120.0	70.0	105.0	120.0	83.0	110.7
36"		120.0	120.0	120.0	58.4	87.5	116.7	69.2	92.2
42"		105.1	120.0	120.0	50.0	75.0	100.0	59.3	79.1
48"		92.0	120.0	120.0	43.8	65.6	87.5	51.9	69.2
54"		81.8	120.0	120.0	38.9	58.4	77.8	46.1	61.5
60"		70.0	70.0	70.0	35.0	52.5	70.0	41.5	55.3
30"	108"	120.0	120.0	120.0	66.1	99.2	120.0	78.4	104.5
36"		115.9	120.0	120.0	55.1	82.7	110.2	65.3	87.1
42"		99.3	120.0	120.0	47.2	70.9	94.5	56.0	74.7
48"		86.9	120.0	120.0	41.3	62.0	82.7	49.0	65.3
54"		77.2	115.9	120.0	36.7	55.1	73.5	43.6	58.1
60"		69.5	70.0	70.0	33.1	49.6	66.1	39.2	52.3
30"	114"	120.0	120.0	120.0	62.7	94.0	120.0	74.3	99.0
36"		109.8	120.0	120.0	52.2	78.3	104.4	61.9	82.5
42"		94.1	120.0	120.0	44.8	67.1	89.5	53.1	70.7
48"		82.3	120.0	120.0	39.2	58.7	78.3	46.4	61.9
54"		70.0	70.0	70.0	34.8	52.2	69.6	41.3	55.0
60"		65.9	70.0	70.0	31.3	47.0	62.7	37.1	49.5
30"	120"	120.0	120.0	120.0	59.5	89.3	119.0	70.6	94.1
36"		104.3	120.0	120.0	49.6	74.4	99.2	58.8	78.4
42"		89.4	120.0	120.0	42.5	63.8	85.0	50.4	67.2
48"		78.2	117.3	120.0	37.2	55.8	74.4	44.1	58.8
54"		69.5	70.0	70.0	33.1	49.6	66.1	39.2	52.3
60"		65.9	70.0	70.0	31.3	47.0	62.7	37.1	49.5
30"	126"	70.0	70.0	70.0	56.7	70.0	70.0	67.2	70.0
36"		70.0	70.0	70.0	47.2	70.0	70.0	56.0	70.0
42"		70.0	70.0	70.0	40.5	60.7	70.0	48.0	64.0
48"		70.0	70.0	70.0	35.4	53.1	70.0	42.0	56.0
54"		66.2	70.0	70.0	31.5	47.2	63.0	37.3	49.8
60"		66.2	70.0	70.0	31.5	47.2	63.0	37.3	49.8

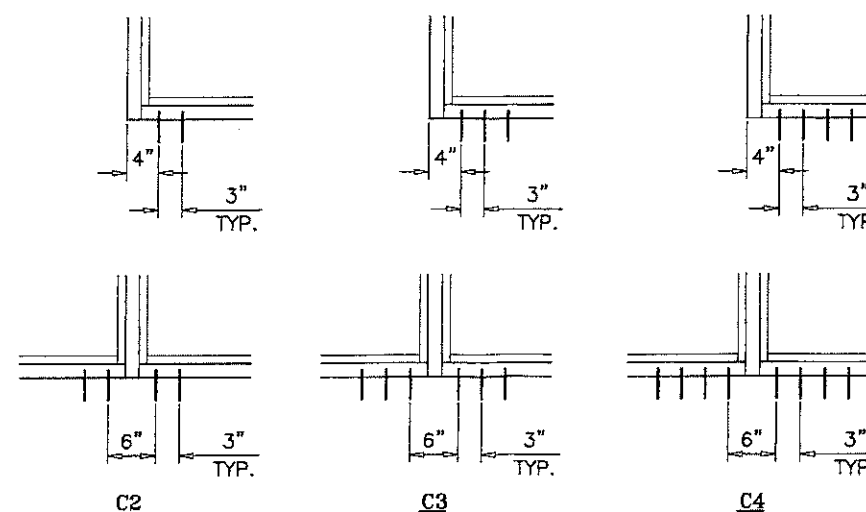
ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS.		ANCHORS TYPE 'C'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	C2	C3	C4	C2	C3	C4	C3	C4
30"	132"	70.0	70.0	70.0	54.1	70.0	70.0	64.1	70.0
36"		70.0	70.0	70.0	45.1	67.6	70.0	53.5	70.0
42"		70.0	70.0	70.0	38.6	58.0	70.0	45.8	61.1
48"		70.0	70.0	70.0	33.8	50.7	67.6	40.1	53.5
30"	138"	70.0	70.0	70.0	51.8	70.0	70.0	61.4	70.0
36"		70.0	70.0	70.0	43.1	64.7	70.0	51.1	68.2
42"		70.0	70.0	70.0	37.0	55.5	70.0	43.8	58.4
48"		68.0	70.0	70.0	32.3	48.5	64.7	38.3	51.1
30"	144"	70.0	70.0	70.0	49.6	70.0	70.0	58.8	70.0
36"		70.0	70.0	70.0	41.3	62.0	70.0	49.0	65.3
42"		70.0	70.0	70.0	35.4	53.1	70.0	42.0	56.0
48"		65.2	70.0	70.0	31.0	46.5	62.0	36.8	49.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



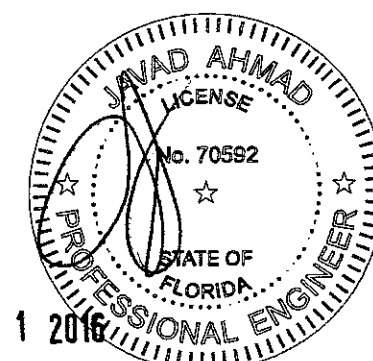
ANCHORS TYPES: SEE SHEET 7 FOR DESCRIPTION

C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. **15-0826.26**

Approval Date **08/25/2021**

By *[Signature]*
Miami-Date Product Control



ANCHORS

AUG 11 2016

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W14-38ES

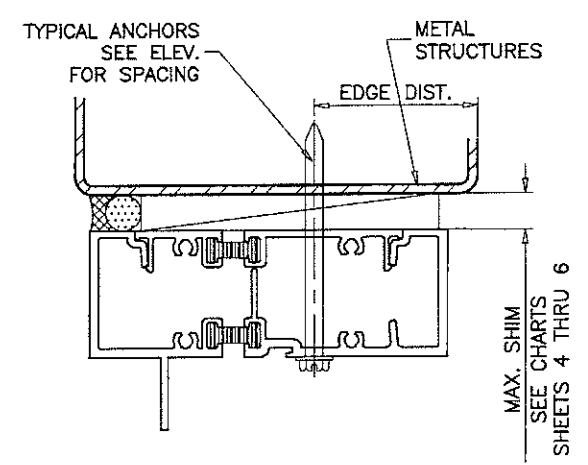
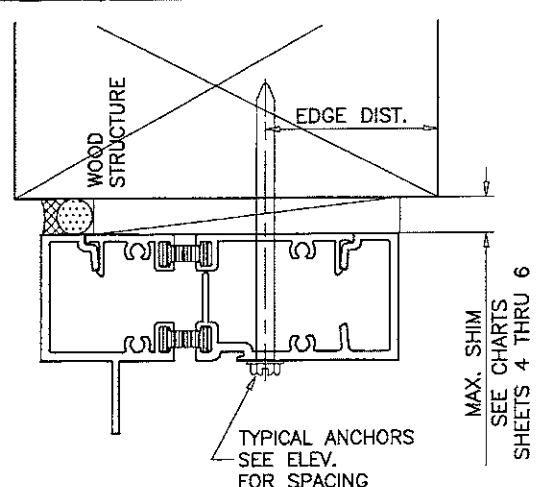
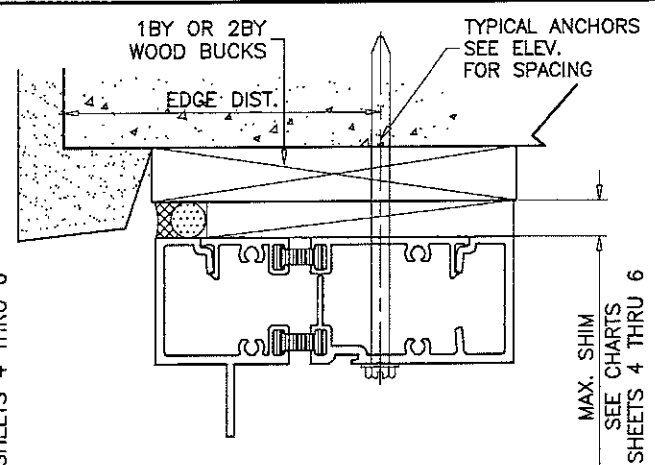
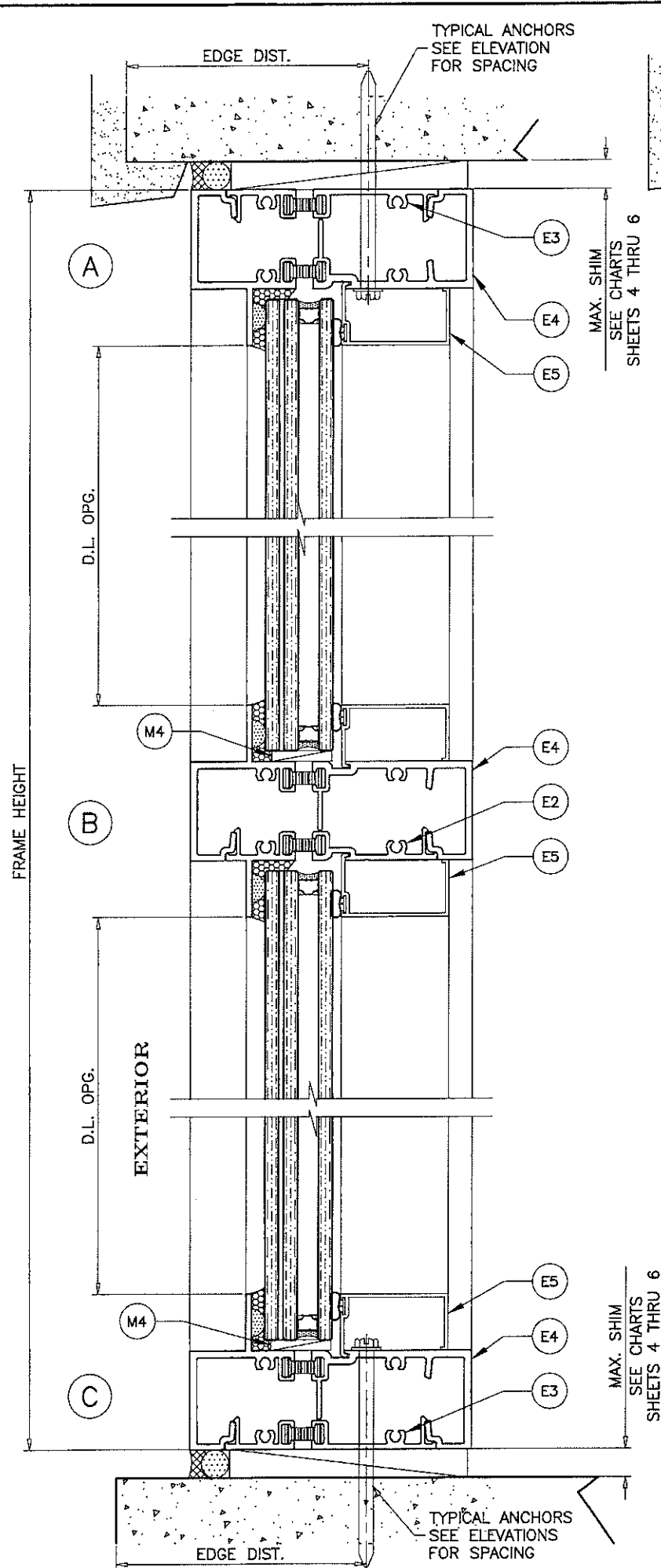
ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no.	date	by	description
	A	10/24/16	REV. PER	COMMENTS
	B	06/27/16	REV. PER	COMMENTS

date: 10-01-14
scale: -
dr. by: HAMID
chk. by:

drawing no.
W14-38

sheet 6 of 9



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A' - 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 INTO WOOD STRUCTURES
 2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY OR 2BY BUCKS INTO CONC. OR MASONRY
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO MASONRY (JAMBS)
 DIRECTLY INTO CONC. OR MASONRY
 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B' - 5/16" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 INTO WOOD STRUCTURES
 2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY OR 2BY BUCKS INTO CONC. OR MASONRY
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO MASONRY (JAMBS)
 DIRECTLY INTO CONC. OR MASONRY
 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

TYPE 'C' - 1/4" DIA. TEKS OR SELF DRILLING SCREWS ST/ST (GRADE 5 CRS)
 INTO METAL STRUCTURES
 STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1/2" MIN.

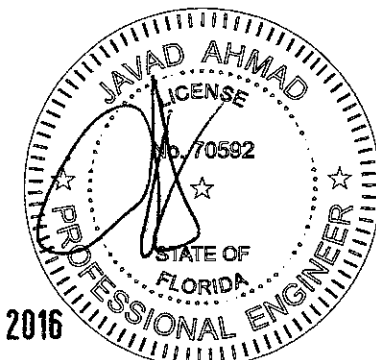
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 GROUT FILLED NORMAL WEIGHT BLOCK AT JAMBS f'm = 2000 PSI MIN.

SEALANTS:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT BY E.S. WDW. MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

PRODUCT APPROVED
 as complying with the Florida
 Building Code
 NOA-No. **15-0826.26**
 Approval Date **08/25/2021**
 By **Miami-Dade Product Control**



AUG 11 2016

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978

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 COMP-ANL W14-38ES

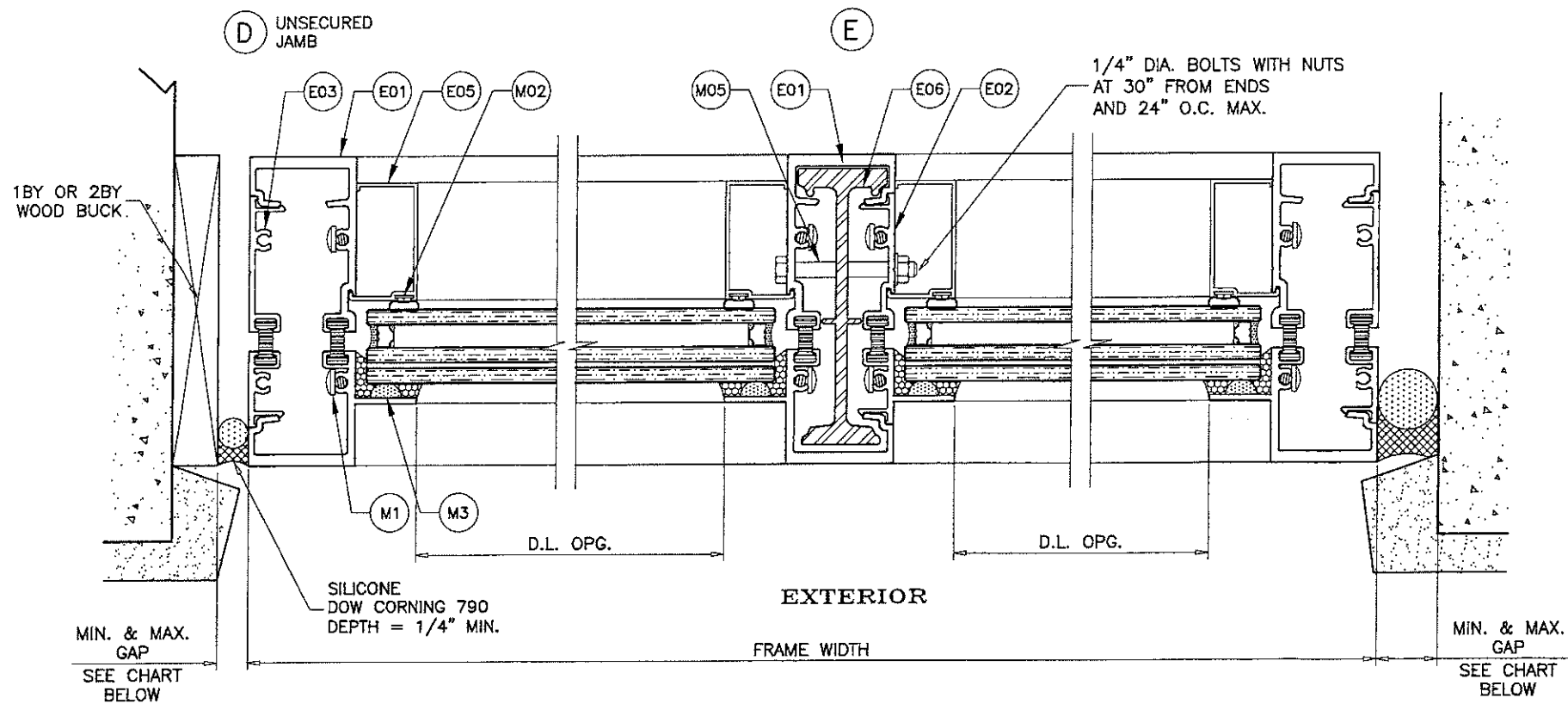
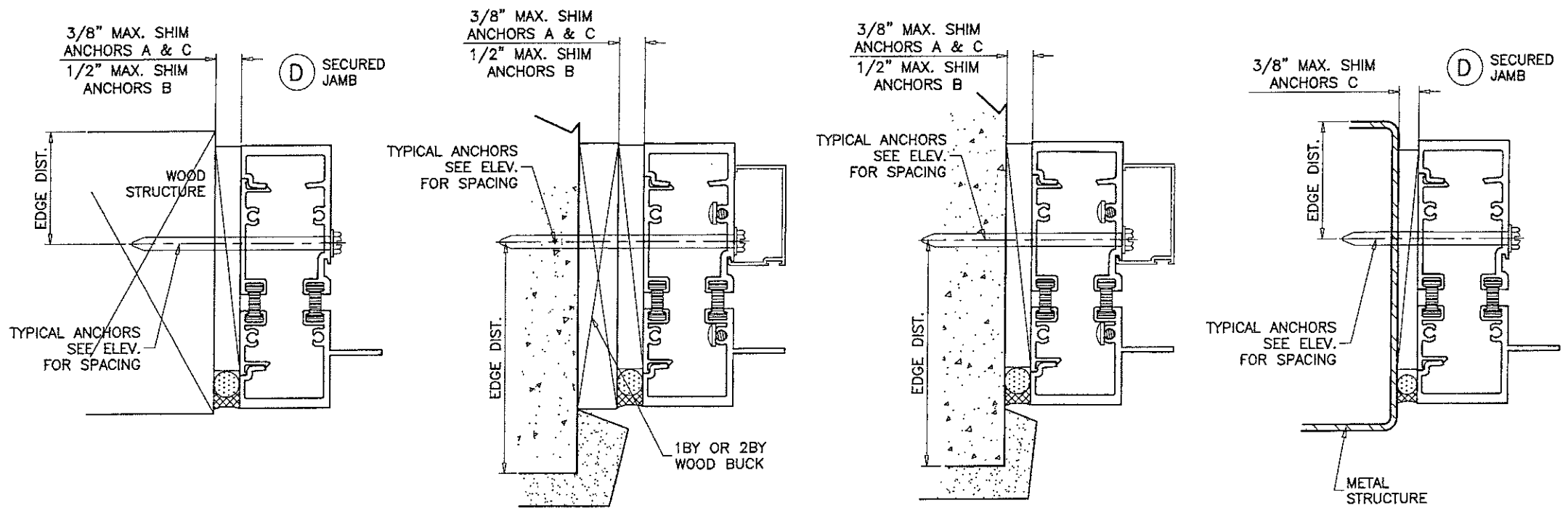
ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)

E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:		no	date	description
A	02.24.16	1	REV. PER RER COMMENTS	
B	06.27.16	2	NO CHANGE THIS SHEET	

date: 10-01-14
 scale: 3/8" = 1"
 dr. by: HAMID
 chk. by:

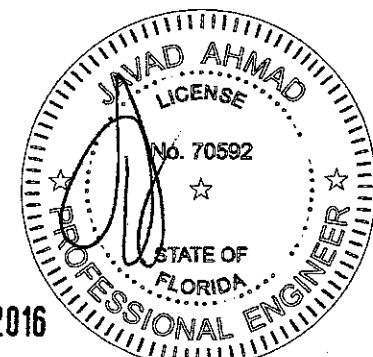
drawing no.
W14-38
 sheet 7 of 9



MAX. GAPS FOR UNANCHORED JAMBS		
MAX. FRAME HEIGHT	JAMB J1	
	MIN.	MAX.
96"	1/4"	1"
102"	1/4"	1"
108"	3/8"	1"
120"	3/8"	1"
132"	3/8"	1"
144"	3/8"	1"

NOTE:
 MAX. MOVEMENT CONSIDERED=100% STRETCH.
 PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOWALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
 REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.
 ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.
 GAPS LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OF RECORD BY THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.

PRODUCT APPROVED
 as complying with the Florida
 Building Code
 NOA-No. 15-0826.26
 Approval Date 08/25/2021
 By *[Signature]*
 Miami-Dade Product Control



AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
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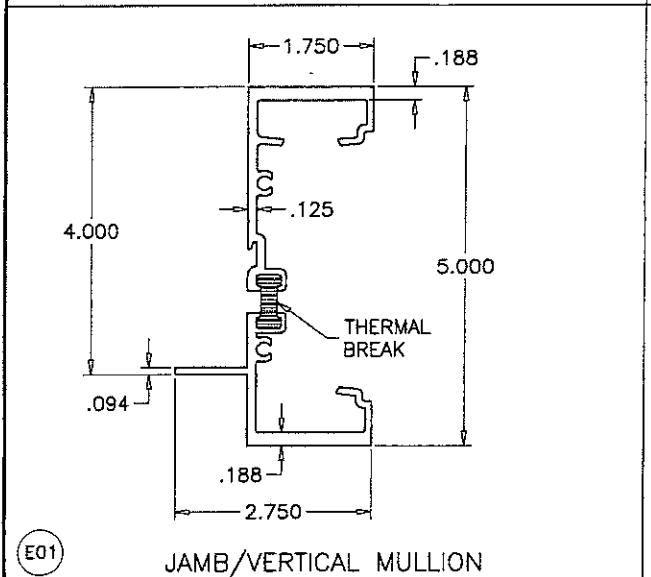
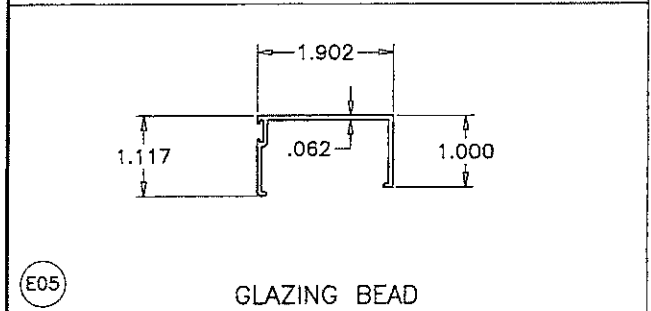
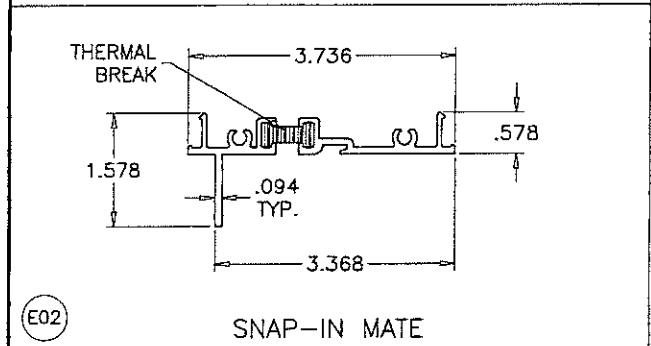
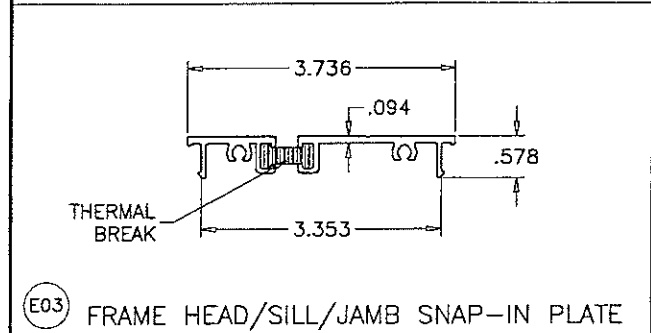
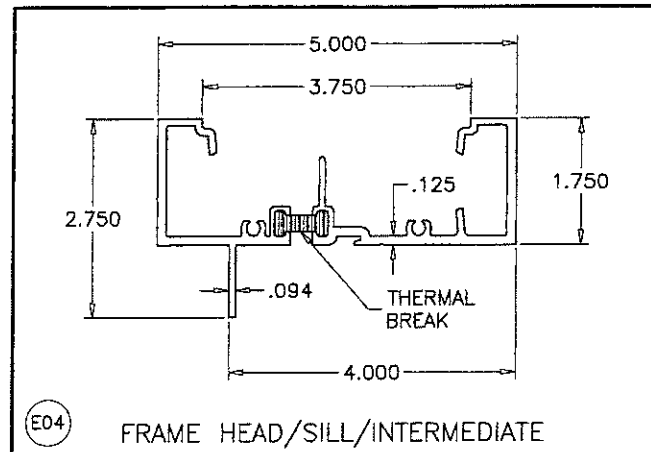
COMP-ANLW14-38ES

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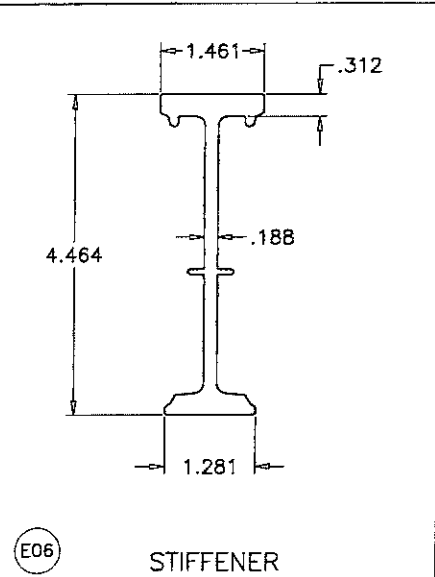
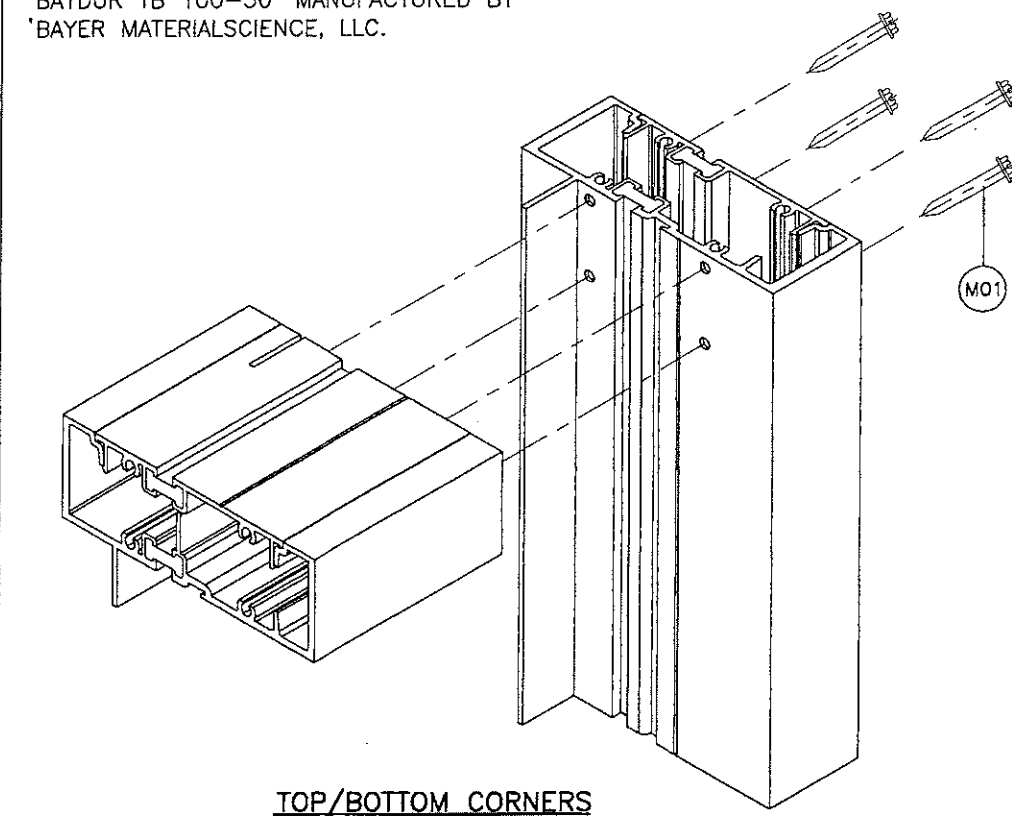
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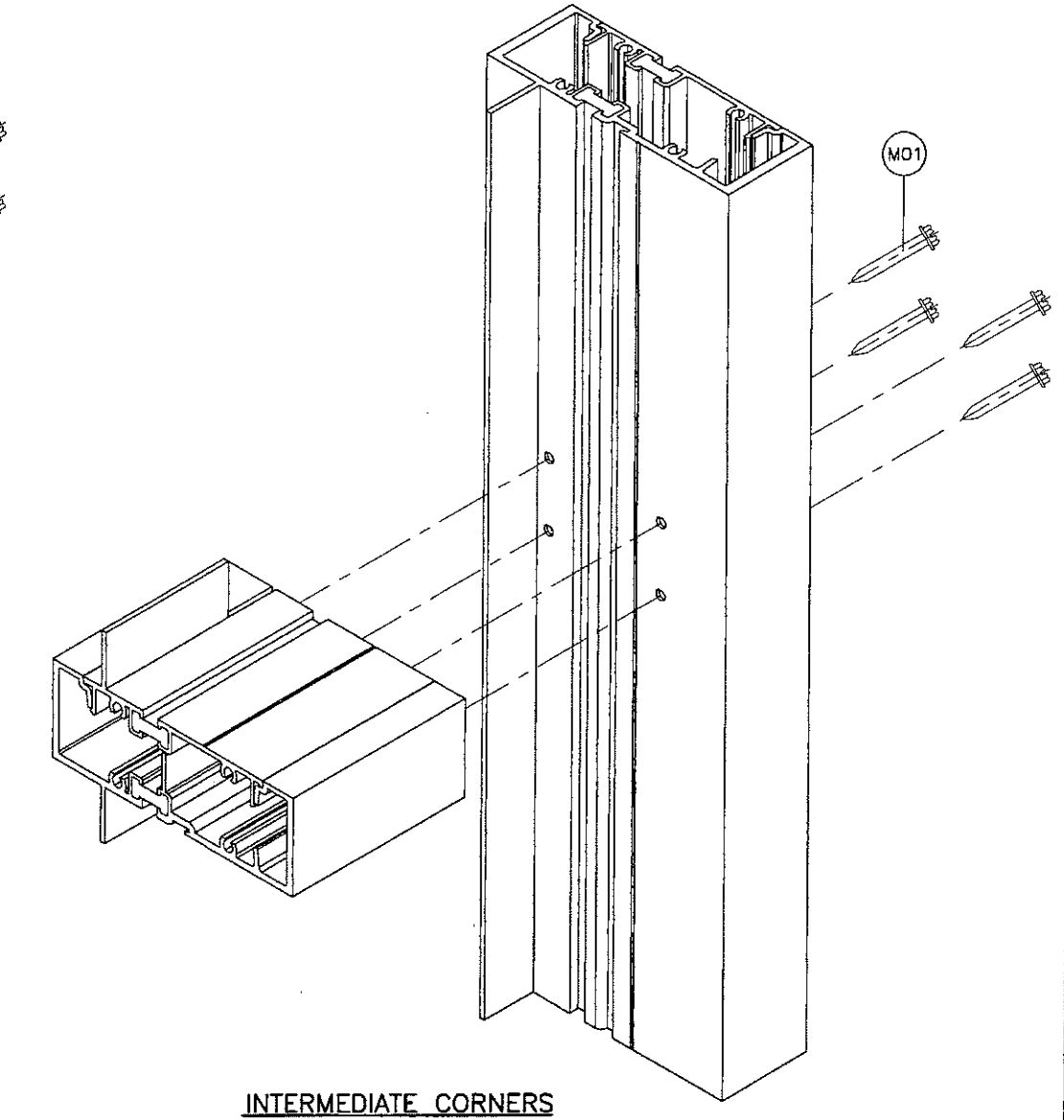
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 sheet 8 of 9



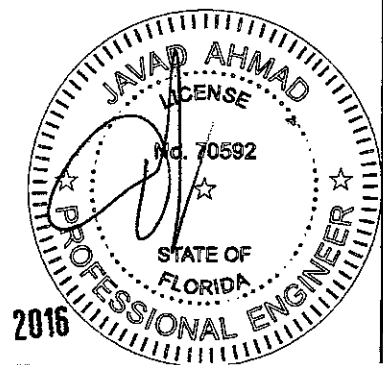
THERMAL BREAK:
FRAME MEMBERS FILLED AND DEBRIDGED USING
'BAYDUR TB 100-30' MANUFACTURED BY
'BAYER MATERIALSCIENCE, LLC.



ITEM #	PART #	REQ'D	DESCRIPTION	MATERIAL	MANF. / SUPPLIER / REMARKS
E01	ES-8000T-001	AS REQD.	JAMB AND VERTICAL MULLION	6005-T5	-
E02	ES-8000T-002	AS REQD.	SNAP-IN MATE	6005-T5	-
E03	ES-8000T-003	AS REQD.	HEAD/SILL/JAMB SNAP-IN PLATE	6005-T5	-
E04	ES-8000T-004	AS REQD.	FRAME HEAD/SILL/INTERMEDIATE	6005-T5	-
E05	ES-8000T-005	AS REQD.	GLAZING BEAD	6063-T5	-
E06	ES-8000T-006	AS REQD.	STIFFENER	6005-T5	-
M01	#12 X 1-1/2"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M02	27-431	AS REQD.	INTERIOR GLAZING GASKET	EPDM	DUROMETER 60±5 SHORE A
M03	G210141	AS REQD.	WEDGE SPACER	EPDM	-
M04	80-328	2/ LITE	SETTING BLOCKS AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
M05	1/4" X 2-1/8"	AS REQD.	MULLION FASTENERS	ST. STEEL	BOLT WITH NUT



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ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)

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